IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Confirmation No. 1683
Koichi HASEGAWA et al.	:	Attorney Docket No. 2006_0570A
Serial No. 10/575,725	:	Group Art Unit 1793
Filed: April 13, 2006	:	Examiner Janell Combs Morillo

SPUTTERING TARGET MATERIAL

DECLARATION UNDER RULE 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Koichi HASEGAWA, hereby declare as follows:

That I finished, in March 1996, the first half of doctoral course of Metal Engineering at the Department of Engineering of Graduate School of Kansai University;

That, in April of the same year, I joined Ishifuku Metal Industry Co., Ltd., and was assigned to Research & Development Institute of the same company, where I have since engaged in the research and development of heat-resistant materials, sputtering target materials for the formation of thin film, and precious metal alloys (e.g., materials for accessories) up to the present;

That I am one of the co-inventors named in the above-identified Application;

That the following experiments were carried out by myself, or under my supervision and control.

Examples 6-1 to 6-8

On an Ag target, chips selected from Ag-P alloy, Au, Ni, Fe, Bi, and Ag-In, Ag-Sn or Ag-Zn alloy were placed in combination. Subsequently, by RF magnetron sputtering method, a thin film of Ag base alloy of 130 nm in film thickness was formed on a glass substrate, and, then, the makeup of said thin film was analyzed by wavelength dispersive X-ray fluorometry. Results are shown in Table 12 below.

Table 12

	Sample No.	Makeup (mass %)
Examples	6-1	0.06 P – 0.56 Cu– 0.3 Au – 0.5 In – Rest Ag
	6-2	0.09 P – 0.51 Cu– 0.3 Au – 0.5 Sn – Rest Ag
	6-3	0.09 P – 0.51 Cu– 0.3 Au – 0.4 Zn – Rest Ag
	6-4	0.06 P – 0.55 Cu– 0.13 Ni – 0.3 Au – 0.5 In – Rest Ag
	6-5	0.08 P – 0.52 Cu – 0.04 Fe – 0.3 Au – 0.5 In – Rest Ag
	6-6	0.08 P – 0.51 Cu – 0.4 Bi – 0.3 Au – 0.5 In – Rest Ag
	6-7	0.07 P – 0.33 Pt – 0.51 Cu – 0.2 In – Rest Ag
	6-8	0.08 P – 0.6 Pd – 0.51 Cu– 0.4 Zn – Rest Ag

The sulfurization resistance of thus obtained thin film was measured by the method which is mentioned in the present specification, page 10, line 18 to page 11, line 10. Results are shown in Table 13 below.

Table 13

		Rate of change (%)	
	Sample No.	Measured wavelength 400 nm	Measured wavelength 700 nm
Examples	6-1	31.0	10.38
	6.2	39.3	22.02
	6.3	38.2	19.0
	6-4	34.3	14.4
	6-5	40.1	20.8
	6-6	38.6	22.3
	6-7	38.3	14.3
	6-8	50.3	15.0

It is seen from Table 13 that the thin films of Examples 6-1 to 6-8 in accordance with the present invention show small rate of change of reflectance at wavelengths of 400 nm and 700 nm, in particular at 400 nm, as compared with thin films of Comparative Examples 4-1, 4-2 and 4-3 (see my Declaration dated October 26, 2009), which means that the thin films of Examples 6-1 to 6-8 have good sulfurization resistance. Examples 6-1 to 6-8 are representative of the claimed scope.

The undersigned declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.

Signed this 16 th day of August 2010

Koichi Hasegawa

Koichi HASEGAWA